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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/529,496

09/16/2005

Anders Hyltander

10400-000151/US

8521

30593

7590

10/29/2007

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EXAMINER

CARLOS, ALVIN LEABRES

ART UNIT

PAPER NUMBER

4138

MAIL DATE

DELIVERY MODE

10/29/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/529,496

Applicant(s)

HYLTANDER ET AL.

Examiner

Alvin L. Carlos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/29/2005
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 5, 11, 15-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Regarding claims 5, 11, 16-18, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2, 5, 7-8, 11-12, 16, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Jacobus 5769640.

Re claim 1, Jacobus teaches a method for generating a virtual anatomic environment for use in a computer based visual simulation of minimally invasive surgery (column 2 lines 22-29), comprising providing a main virtual anatomic environment

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(column 2 lines 40-43), selecting a local anatomic environment from a predefined library comprising a set of two or more separately modeled local anatomic environments (column 3 lines 57-67), including the selected local anatomic environment in main anatomic environment to form virtual anatomic environment, thereby allowing generation of different virtual environments (column 4 lines 12-19).

Re claim 2, Jacobus teaches set of local anatomic environments is arranged to represent a set of anatomic variations for a critical internal area, occurring in living beings (column 3 lines 57-67).

Re claim 5, Jacobus teaches the main virtual anatomic environment is arranged to model an internal cavity of a human (column 5 lines 1-6), such as an abdominal cavity or a chest cavity, while the set of local anatomic environments is arranged to simulate different arrangements of arteries, veins and ducts around an organ arranged in internal cavity, such as a gall bladder or a heart (column 3 lines 57-67).

Re claim 7, Jacobus teaches a device for generating a virtual anatomic environment (column 4 lines 1-4) for use in a computer based visual simulation of minimally invasive surgery comprising a modeling device for providing a main virtual anatomic environment (column 5 lines 7-9), a library comprising a set of two or more separately modeled local anatomic environments (column 5 line 67 and column 6 line 1), means for incorporating one of the local anatomic environments of the library into the main virtual anatomic environment together forming virtual anatomic environment, thereby allowing generation of different virtual environments (column 5 lines 31-35).

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Re claim 8, Jacobus teaches a selection device for selecting one of local anatomic environments from library to be included in main anatomic environment (column 5 lines 20-22).

Re claim 11, Jacobus teaches the main virtual anatomic environment is arranged to model an internal cavity of a human (column 5 lines 1-6), such as an abdominal cavity or a chest cavity, while the set of local anatomic environments is arranged to simulate different arrangements of arteries, veins and ducts around an organ arranged in internal cavity, such as a gall bladder or a heart (column 3 lines 57-67).

Re claim 12, Jacobus teaches a computer-based minimal-invasive surgery simulation system comprising a device for generating a virtual anatomic environment (column 4 lines 1-4).

Re claim 16, Jacobus teaches the main virtual anatomic environment is arranged to model an internal cavity of a human (column 5 lines 1-6), such as an abdominal cavity or a chest cavity, while the set of local anatomic environments is arranged to simulate different arrangements of arteries, veins and ducts around an organ arranged in internal cavity, such as a gall bladder or a heart (column 3 lines 57-67).

Re claim 19, Jacobus teaches a computer-based minimal-invasive surgery simulation system comprising a device for generating a virtual anatomic environment (column 4 lines 1-4).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-4, 6, 9-10, 13-15, 17-18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobus 5769640 in view of Ramshaw 5791907.

Re claim 3, Jacobus teaches the invention as discussed above.

However, Jacobus fails to teach the following claimed limitations as taught by Ramshaw: the step of randomly selecting one of the local anatomic environments in the library (column 17 lines 9-12).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jacobus's invention in view of Ramshaw in order to provide a low-cost medical educational and training device providing an interactive user environment as taught by Ramshaw (column 2 lines 50-52).

Re claim 4, Jacobus teaches the invention as discussed above.

However, Jacobus fails to teach the following claimed limitations as taught by Ramshaw: the probability of randomly selecting a certain local anatomic environment essentially corresponds with the degree of occurrence of that local anatomic environment in living beings (column 17 lines 25-31).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jacobus's invention in view of Ramshaw in order to provide a low-

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cost medical educational and training device providing an interactive user environment as taught by Ramshaw (column 2 lines 50-52).

Re claim 6, Jacobus teaches the invention as discussed above.

However, Jacobus fails to teach the following claimed limitations as taught by Ramshaw: Selecting a certain local anatomic environments from the library and including it into main virtual environment by user selection (column 17 lines 25-31).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jacobus's invention in view of Ramshaw in order to provide a low-cost medical educational and training device providing an interactive user environment as taught by Ramshaw (column 2 lines 50-52).

Re claim 9, Jacobus teaches the invention as discussed above.

However, Jacobus fails to teach the following claimed limitations as taught by Ramshaw: randomly select one of local anatomic environments from the library to be included in main anatomic environment (column 17 lines 9-12).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jacobus's invention in view of Ramshaw in order to provide a low-cost medical educational and training device providing an interactive user environment as taught by Ramshaw (column 2 lines 50-52).

Re claim 10, Jacobus teaches the invention as discussed above.

However, Jacobus fails to teach the following claimed limitations as taught by Ramshaw: randomly select one of local anatomic environments in a way that the probability of selecting a certain local anatomic environment essentially corresponds

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with the degree of occurrence of that local anatomic environment in human beings (column 17 lines 25-31).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jacobus's invention in view of Ramshaw in order to provide a low-cost medical educational and training device providing an interactive user environment as taught by Ramshaw (column 2 lines 50-52).

Re claim 13, Jacobus teaches the invention as discussed above.

However, Jacobus fails to teach the following claimed limitations as taught by Ramshaw: the step of randomly selecting one of the local anatomic environments in the library (column 17 lines 9-12).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jacobus's invention in view of Ramshaw in order to provide a low-cost medical educational and training device providing an interactive user environment as taught by Ramshaw (column 2 lines 50-52).

Re claims 14 and 15, Jacobus teaches the invention as discussed above.

However, Jacobus fails to teach the following claimed limitations as taught by Ramshaw: Selecting a certain local anatomic environments from the library and including it into main virtual environment by user selection (column 17 lines 25-31).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jacobus's invention in view of Ramshaw in order to provide a low-cost medical educational and training device providing an interactive user environment as taught by Ramshaw (column 2 lines 50-52).



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Re claims 17-18, Jacobus teaches the invention as discussed above.

Furthermore, Jacobus teaches the main virtual anatomic environment is arranged to model an internal cavity of a human (column 5 lines 1-6), such as an abdominal cavity or a chest cavity, while the set of local anatomic environments is arranged to simulate different arrangements of arteries, veins and ducts around an organ arranged in internal cavity, such as a gall bladder or a heart (column 3 lines 57-67).

Re claim 20, Jacobus teaches the invention as discussed above. Furthermore, Jacobus teaches a computer-based minimal-invasive surgery simulation system comprising a device for generating a virtual anatomic environment (column 4 lines 1-4).

### ***Conclusion***


8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as per the attached Noticed of References Cited.

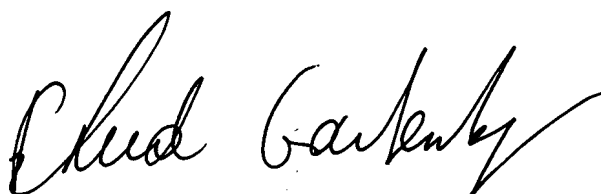
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin L. Carlos whose telephone number is 571-2703077. The examiner can normally be reached on 7:30am-5:00pm EST Mon-Fri. (alternate Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571-2724828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
AC  
10/24/2007

  
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SUPERVISORY PATENT EXAMINER  
10/24/07